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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/625,788

07/23/2003

Rajashankar Rajakumar

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04/12/2006

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EXAMINER

MILLER, BRIAN E

ART UNIT

PAPER NUMBER

2627

DATE MAILED: 04/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/625,788

Applicant(s)

RAJAKUMAR, RAJASHANKAR

Examiner

Brian E. Miller

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 5, 12-14, 18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-11, 15, 16, 19 and 20 is/are rejected.
- 7) ☒ Claim(s) 17 is/are objected to.
- 8) ☒ Claim(s) 1-20 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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Claims 1-20 are pending.

Election/Restrictions

1. Applicant's election of Species (I), i.e., FIGs. 2A-2B, in the reply filed on 1/30/06 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).
2. Claims 5, 12-14, 18 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 1/30/06. It is noted that claim 18 has been added to the withdrawn claims, as limitations in this claim are not commensurate with the elected species.

Drawings

3. The drawings are objected to because: (a) FIG. 2B includes the reference numeral "286", which is inconsistent with FIG. 2A, and is believed it should be changed "280"; (b) further, with respect to FIG. 2B, reference numeral "50" should be changed to "250" for consistency with FIG. 2A. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the

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drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

4. The disclosure is objected to because of the following informalities: (a) page 7, line 8 the word "titled" should be changed to "tilted" it is presumed. Furthermore, the lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification. Appropriate correction is required.

Claim Objections

5. Claims 1-20 are objected to because of the following informalities: (a) at the end of each independent claim, i.e., 1, 15, 19, the word "respectively" should be added after "levels" for clarity; (b) the proper status identifier should be provided for *every* claim, including withdrawn and amended. Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-4, 6-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. (a) In claim 1, the language “a second recessed level recessed below the first recessed level” leaves the claim incomplete, because there is no structural cooperation with any other element of the claim.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-3, 6-8, 15-16, 19-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Rao et al (US 2002/0075599). Rao et al discloses a bearing surface, as shown mainly in FIG. 3 including: (as per claims 1 & 15) a leading edge 38; a trailing edge 40; a bearing surface level 46; a first recessed level 50 recessed below the bearing surface level; a second recessed level 58 recessed below the first recessed level; and a center split feature disposed proximate a centroid, i.e., a horizontal center, of the bearing surface, the center split feature comprising: a first center split level 66 that is at the same level as the bearing surface level 46 (see para [0027]); a second center split level 78 disposed forward of the first center split level that is at the same level as the first recessed level (see para [0028] & [0029]); and a third center split level, e.g., proximate area 94, disposed forward of the second center split level 78 and recessed from the second center split

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level; wherein the first 66, second 78 and third 94 center split levels form a step like pattern, and are disposed such that fluid flowing over the bearing surface flows over the third, second and first center split levels, respectively; (as per claims 2 & 16) the bearing surface further including: a cavity dam 214 disposed proximate to the leading edge 38, the cavity dam having a disc facing surface that is raised above the first recessed level 46; and a subambient pressurization cavity 240 disposed between the cavity dam and the center split feature; (as per claim 3) the bearing surface further including: a first side rail 52 disposed along a first side of the slider body; a second side rail 54 disposed along a second side of the slider body (as per claim 6) wherein a portion of the subambient pressurization cavity includes the third center split level (inside furrow 94); (as per claim 7) wherein the first recessed level is recessed between about 0.15 microns and about 0.3 microns (see para 0025)]; (as per claim 8) wherein the second recessed level is recessed between about 2 microns and about 5 microns (see para [0026]). Claims 19 and 20, which are broader, are encompassed by the description of Rao et al, above.

10. Claims 19-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Jang et al (2002/0008940). Jang et al discloses a bearing surface, as shown in at least FIG. 4, including: a center split feature 130, 131 disposed proximate a centroid of the bearing surface, the center split feature comprising at least three center split levels 130, 131, 180, wherein the at least three center split levels form a step like pattern, and are disposed such that fluid flowing over the bearing surface flows over each of the at least three center split levels; (as per claim 20) wherein a cavity dam, e.g., stepped feature forward of 120, is disposed forward of the center split feature relative to the fluid flow.

Allowable Subject Matter

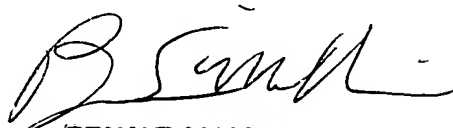
11. Claims 4, 9-11 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.
12. Claim 17 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian E. Miller whose telephone number is (571) 272-7578. The examiner can normally be reached on M-TH 6:30am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa T. Nguyen can be reached on (571) 272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


BRIAN E. MILLER
PRIMARY EXAMINER
AV2627 4/6/06